

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : TORAY IND INC

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(72)Inventor : UEMURA TADAHIRO

HARUMIYA NORIO

KURIHARA MASARU

(54) SEPARATION OF LIQUID BY SEMIPERMEABLE COMPOSITE MEMBRANE

(57)Abstract:

PURPOSE: To maintain the separating capacity of the semipermeable composite membrane for a long period of time by adding a sulfite, a bisulfite, or sulfurous acid gas and a manometric agent for ions of heavy metal to a treating liquid in the separation and recovery of inclusions from liquid by a reverse osmosis method using the specific semipermeable composite membrane.

CONSTITUTION: In the manufacture of pure water by recovering valuables present in industrial water, sea water, etc., the semipermeable thin membrane consisting of a bridged polymer of furfuryl alcohol is formed on the surface of a porous supporting membrane consisting of polysulfone by coating it with an aqueous solution containing furfuryl alcohol and an acid catalyst, e.g., sulfuric acid, followed by polymerization by heating, and the composite membrane thus obtained is used as a barrier layer. In this case, to the treating liquid 5W100ppm of a sulfite, a bisulfite, or sulfurous acid gas and 20W500ppm of the heavy metal manometric agent, e.g., ethylenediamine tetraacetic acid, etc., are added. Thus, the separating capacity of the said composite membrane can be maintained for a long period of time.

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